

CLAIMS

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1 A socket connector that mates with a plug connector to establish an electrical plug
2 connector assembly, said socket connector comprising:

3 a housing that includes a socket receiving aperture formed by a housing wall;
4 a U-shaped first contact part mounted within said housing and including first and second
5 walls that are nominally parallel; and
6 a second contact part mounted within said housing to nominally contact said first
7 movable contact part in order provide an electrical connection between said first and second
8 contact parts, wherein the plug connector is inserted into said socket receiving aperture said first
9 wall flexes radially with respect to said second wall breaking the electrical connection between
10 said U-shaped contact part and said second second contact part.

11 2. The socket connector of claim 1, wherein said first wall flexes radially away from said
12 second wall when the plug connector is inserted into said socket receiving aperture.

13 3. The socket connector of claim 2, wherein said first and second walls are integrally
14 connected by a semicircular wall of said U-shaped first contact part, and said socket connector
15 comprises a radially outward sloped guide wall mounted to said first wall, wherein said sloped
16 guide wall facilitates moving said first wall radially away from said second wall as the plug
17 connector is inserted into said socket receiving aperture.

1 4. The socket connector of claim 3, comprising a connection plate (25) integrally attached to
2 said U-shaped first contact part.

1 5. The socket connector of claim 3, comprising a least one holding protrusion (24)
2 integrally attached to said U-shaped first contact part.

1 6. The socket connector of claim 2, wherein said housing is pot-shaped and includes a
2 central pass-through opening for inserting a contact pin of the plug connector, said U-shaped first
3 contact part extending at least partially into said pass-through opening.

3 7. The socket connector of claim 2, wherein said housing includes an insulating part into
which said second contact part and said U-shaped first contact part are inserted and operably
positioned.

1 8. The socket connector of claim 7, wherein said second contact part and said U-shaped first
2 contact part each comprise at least one holding protrusion that engages said insulating part to
3 hold said second contact part and said U-shaped first contact part axially in place.

1 9. The socket connector of claim 8, wherein said insulating part includes at least one
2 identification protrusion that extends from a main body of said insulating part, wherein said
3 identification protrusion identifies the position of said socket connector.

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70. A plug connector that mates with a socket connector to establish an electrical plug connector assembly, said plug connector comprising:

3 a housing;

4 a contact pin that runs axially through at least a portion of the length of said housing, and
5 includes a pin base portion and a pin projecting portion;

6 an insulating shell that coaxially surrounds said pin base portion;

7 a metallic shell that coaxially surrounds said insulating shell; and

8 a spring loaded slider shell that in spaced relationship coaxially surrounds said pin
9 projecting portion, wherein said slider shell axially slides upward when said plug connector is
10 inserted into the socket connector to expose said pin projecting portion to axially beyond the
11 upwardly slid said spring loaded slider shell.

12 11. The plug connector of claim 10, wherein said spring loaded slider shell comprises an
axial exterior section that includes an outlet coaxial with said pin projecting portion, wherein said
pin projecting portion axially passes through said outlet, and said outlet is formed by an
electrically non-conducting guide shell positioned between said pin projecting portion and said
spring loaded slider shell.

13 12. The plug connector of claim 11, comprising a spring that is mounted to a first axial end of
said housing axially opposite to said spring loaded slider shell to support said plug connector
against a mounting wall.

1 13. The plug connector of claim 10, wherein said spring loaded slider shell comprises a
2 coiled spring.

1 14. The plug connector of claim 11, wherein said housing comprises a crimp connection for
2 connecting a coaxial line.

3 15. An electrical plug connector assembly, comprising:

A. a socket connector, that includes

a socket housing having a socket receiving aperture formed by a housing wall;

a U-shaped first contact part mounted within said socket housing and including
first and second walls that are nominally parallel;

a second contact part mounted within said socket housing to nominally contact
said first movable contact part in order provide an electrical connection between said first
and second contact parts, wherein when a plug connector is inserted into said socket
receiving aperture said first wall flexes relative to said second wall breaking the electrical
connection between said U-shaped contact part and said second contact part;

B. said plug connector comprising

a plug housing;

a contact pin that runs axially through at least a portion of the length of said plug
housing, and includes a pin base portion and a pin projecting portion;

an insulating shell that coaxially surrounds said pin base portion;

a metallic shell that coaxially surrounds said insulating shell; and

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18 a spring loaded slider shell that in spaced relationship coaxially surrounds said pin
19 projecting portion, wherein said slider shell axially slides upward when said plug
20 connector is inserted into said socket connector to expose said pin projecting portion that
21 axially projects beyond the upwardly slid said spring loaded slider shell and engages said
first wall causing said first wall to radially flex relative to said second wall.

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